

## REMARKS

The present application was filed on June 20, 2003 with claims 1 through 17. Claims 1 through 17 are presently pending in the above-identified patent application.

In the Office Action, the Examiner rejected claims 1-17 under 35 U.S.C. §103(a) as being unpatentable over El-Shimi et al. (United States Patent Number 6,931,405 B2) in view of Aboulnaga et al., “Estimating the Selectivity of XML Path Expressions for Internet Scale Applications” (“Aboulnaga” hereinafter).

### Independent Claims 1, 16 and 17

Independent claims 1, 16, and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over El-Shimi et al. in view of Aboulnaga. Regarding claim 1, the Examiner asserts that El-Shimi discloses “providing a set of subscriptions, at least one of the set of subscriptions comprising a tree pattern, wherein the tree pattern comprises one or more interconnected nodes having a hierarchy and adapted to specify content and structure of information” (FIG. 5: elements 501-504; col. 8, lines 15-25 and 51-62).

Applicants note that El-Shimi discloses a *filter tree*, *not a subscription tree*. In the text cited by the Examiner, El-Shimi teaches that, “for larger numbers of subscription requests, the filter 310 may use a *tree of filters* as illustrated by the filter tree 400 of FIG. 4.” (Col. 8, lines 58-60; emphasis added.) Regarding filter tree 400, El-Shimi teaches that

FIG. 4 illustrates an example filter tree 400 that may be used within the filter 310 of FIG. 3. The filter tree 400 is designed to reduce or even minimize the number of filters that must deal with event notifications. For example, suppose that the event subscriptions are only for events that are fired by processes identified by an identifier 5 or an identifier 6. The root filter 401 in the filter tree 400 may filter out any event notifications that were not fired by processes 5 or 6. In the illustrated example in FIG. 4, the event passes the filter 401. Events received at a filter are represented by arrows arriving at the left portion of the filter. Events passing the filter are represented by arrows emitting from the right portion of the filter. An arrow with an "X" superimposed means that that would have been the event flow had the event not already been filtered out by some upstream filter. Arrows without the superimposed "X" means that the event notification has not been filtered out by an upstream filter.  
(Col. 9, lines 31-47.)

El-Shimi teaches that the Query Filters 311, 312 are separate entities from the Subscription element 303. (See, FIG. 3.) Thus, El-Shimi does *not* disclose or suggest that the *subscription(s) 303 comprise a tree pattern*. Independent claims 1, 16, and 17 require providing a set of subscriptions, at least one of the set of *subscriptions comprising a tree pattern*, wherein the tree pattern comprises one or more interconnected nodes having a hierarchy and adapted to specify content and structure of information.

Thus, El-Shimi et al. and Aboulnaga, alone or in combination, do not disclose or suggest providing a set of subscriptions, at least one of the set of subscriptions comprising a tree pattern, wherein the tree pattern comprises one or more interconnected nodes having a hierarchy and adapted to specify content and structure of information, as required by independent claims 1, 16, and 17.

#### Dependent Claims 2-15

Dependent claims 2-15 were rejected under 35 U.S.C. §103(a) as being unpatentable over El-Shimi et al. in view of Aboulnaga.

Claims 2-15 are dependent on claim 1 and are therefore patentably distinguished over El-Shimi et al. and Aboulnaga (alone or in any combination) because of their dependency from independent claim 1 for the reasons set forth above, as well as other elements these claims add in combination to their base claim.

All of the pending claims, i.e., claims 1 through 17, are in condition for allowance and such favorable action is earnestly solicited.

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below.

The Examiner's attention to this matter is appreciated.

Respectfully submitted,



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Date: April 14, 2006

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